EPA REQUESTED INFORMATION ON OFF-SITE TRANSLOAD AND BARGE TRANSPORT COSTS

This summary responds to EPA's questions regarding the development of transportation and disposal costs for the off-site landfill disposal option in the draft Feasibility Study (FS). The specific EPA questions that were asked are:

- What are the costs of developing the on-site versus off-site transload facilities and what are the assumed production rates for each?
- What are the costs of transportation and disposal using rail versus barge/truck (provide a reference in the FS for the rail option)?

The cost development in the draft FS assumed that the sediment would be transloaded from barges to rail cars in Portland, transported by rail, and disposed of at Waste Management's Columbia Ridge landfill in Arlington, Oregon. This information was provided in Appendix K (Section 2.3.7) of the draft FS. In EPA's comments on the draft FS, EPA requested the development of parallel costs to transport the sediment by barge from Portland to a transload facility closer to the landfill ("off-site transload") where the sediment would be transloaded to trucks and disposed of at a landfill. For ease of comparison, these two options are addressed side by side in Table 1 under the headings "Rail Transportation and Disposal" for the option presented in the draft FS and "Barge/Truck Transportation and Disposal" for the newly developed option.

Table 1. Comparison of Rail Transportation and Disposal to Barge/Truck Transportation and Disposal.

Topic	Rail Transportation and Disposal[a]	Barge/Truck Transportation and Disposal[b]
Cost to Develop the Transload Facility	$7,500,000	$3,400,000
Associated Assumptions	• 20-acre facility (including 12- to 15-acre stockpile) • Includes the development of two rail spurs for loading sediment onto gondola cars • $40,000 permitting cost • Does not include $23,500 per acre per year lease, but the lease cost is included in the "Total Cost Per Ton"	• 20-acre facility (capacity to offload two barges and load 4 trucks simultaneously; 15-acre stockpile) • Includes sealed pads for blending sediment with drying amendment, loading trucks, and stockpile • Includes sealed drive-through pads for truck loading and inspection • $40,000 permitting cost • Does not include $23,500 per acre per year lease, but the lease cost is included in the "Total Cost Per Ton"
Production Rate[c]	460,000 cubic yards per season	460,000 cubic yards per season
Cost for Transportation and Disposal	$50 per ton	$72 per ton

Table 1. Comparison of Rail Transportation and Disposal to Barge/Truck Transportation and Disposal.

Topic	Rail Transportation and Disposal[a]	Barge/Truck Transportation and Disposal[b]
Associated Assumptions	• Includes rail transportation from Portland to landfill, disposal, and all fees • Does not include cost for mobilization of gondola cars ($4,000 per car per year), but the mobilization cost is included in the "Total Cost Per Ton" • Does not include the cost of sediment handling, dewatering, amendment, or loading at the transload facility, but the materials handling costs are included in the "Total Cost Per Ton" • "Unit train" service (project would make up full trains—50 to 60 cars) • Free liquids would be eliminated by decanting and amending sediment at the transload facility • Gondolas would be loaded with 100 tons of amended sediment	• Includes barge and truck transportation, disposal, and all fees • Does not include cost for mobilization of barges, but the mobilization cost is included in the "Total Cost Per Ton" • Does not include the cost of sediment handling, dewatering, amendment, or loading at the transload facility, but the materials handling costs are included in the "Total Cost Per Ton" • Free liquids would be eliminated by decanting and amending sediment at the transload facility • Truck/pup combinations would carry a total of 30 tons per load • Approximately 15 barges and 46 truck/pup combinations required (8-day round trip for barges and 3 round trips per day for trucks)[d]
Total Cost Per Ton	$79 per ton	$95 per ton

Notes:

[a] Refer to Section 2.3.7 of Appendix K of the draft FS.

[b] A location for a 17-acre, off-site transload facility has not been identified. Uncertainties associated with this option include securing a facility with sufficient land and berthing capacity to accommodate the development of a transload facility with the desired throughput capacity and mobilizing 15 barges for this operation.

[c] The throughput of the two transload facilities is approximately equivalent and both facilities have stockpile areas to extend the transload operation season beyond the end of the in-water work season for dredging.

[d] Based on the assumed distance between the transload facility and the landfill (45 miles), the barge/truck transport option would require more than 2 million miles per year of truck travel.